

Title (en)

Method and apparatus for bending and tempering glass sheets

Title (de)

Verfahren und Vorrichtung zum Biegen und Tempern von Glastafeln

Title (fr)

Procédé et appareil de bombage et de trempe des feuilles de verre

Publication

EP 0778246 A1 19970611 (EN)

Application

EP 95119315 A 19951207

Priority

- EP 95119315 A 19951207
- US 57726195 A 19951222

Abstract (en)

The invention relates to a method and apparatus for bending and tempering glass sheets. The apparatus comprises an arch-bendable roll conveyor and upper and lower tempering boxes (7, 5) including tempering orifices (8, 6). The conveyor includes individual rolls (4) which consist of two or more sections (4a, 4b) or are flexible, such that the mid-section of said rolls (4) can be deflected to a lower level than the ends thereof. Upper press rollers (11) are simultaneously pressed downwards by means of pneumatic cylinders (17). The press rollers (11) can be provided with a desired zonewise pressing force for producing a desired double bending. <IMAGE>

IPC 1-7

C03B 23/033; C03B 27/044

IPC 8 full level

C03B 23/033 (2006.01); **C03B 27/044** (2006.01)

CPC (source: EP US)

C03B 23/033 (2013.01 - EP US); **C03B 27/0404** (2013.01 - EP US); **C03B 27/0447** (2013.01 - EP US); **C03B 40/005** (2013.01 - EP US)

Citation (applicant)

- US 4881962 A 19891121 - REUNAMAEKI PAULI T [FI], et al
- US 5057137 A 19911015 - REUNAMAEKI PAULI T [FI], et al
- US 4822398 A 19890418 - MCMASTER HAROLD A [US], et al

Citation (search report)

- [A] US 5443609 A 19950822 - LEHTO ESKO [FI]
- [A] US 4773925 A 19880927 - SCHULTZ STEPHEN J [US]
- [DA] EP 0261611 A1 19880330 - KYRO OY [FI]
- [DA] WO 8901458 A1 19890223 - GLASSTECH INT L P [US]
- [A] EP 0421784 A1 19910410 - MUIRFIELD HOLDINGS LP [US]
- [A] EP 0114168 A1 19840801 - DICKS KARL HEINZ DIPL ING [DE], et al

Cited by

EP1131267A4; EP2433792A1; ITTO20100741A1

Designated contracting state (EPC)

DE ES FR GB

DOCDB simple family (publication)

EP 0778246 A1 19970611; EP 0778246 B1 19990818; US 5928398 A 19990727

DOCDB simple family (application)

EP 95119315 A 19951207; US 57726195 A 19951222